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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,654	01/10/2002	Joel Merciel	01215	7927

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EXAMINER

HASHMI, ZIA R

ART UNIT	PAPER NUMBER
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2881

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/926,654

Applicant(s)

MERCIEL, JOEL

Examiner

Zia R. Hashmi

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 07 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 and 37-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 and 37-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. According to the " Preliminary Amendment " received May 16, 2002, dependent claims 3, 5-9, 13-14, 17, 19-22, 24, 27-28, 37-38, and 40 have been amended, and claims 30-36 have been cancelled.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Independent claim 1 and dependent claims 2, 8-11, and 41 are rejected under U.S.C. 102(b) as being anticipated by Breton (5,789,749).

4. With respect to independent claim 1, Breton discloses an apparatus for generating ions in a gaseous medium (Abstract, lines 1-2 and col. 2, lines 7-8), the apparatus being characterized in that it comprises one or more needles, each presenting a shank or a stem, and an emitter end (Abstract, lines 2-3, col. 2, lines 8-11, col. 3, line 10, and Ag in Fig. 1), a sheath of composite material comprising a dielectric material of high resistivity surrounding the shank (Abstract, lines 5-7, col. 2, lines 20-25, and col. 4, lines 23-38); and means for applying a voltage between the portions of the shank (Abstract, lines 3-4, col. 2, lines 15-18, col. 6, lines 20-32 , and Fig. 2).

5. With respect to dependent claims 2, 8-11, and 41, Breton discloses a needle being held in a cylindrical shaped sheath of insulating material (col. 4, lines 35-37 and Fig. 1), with means of applying a voltage between two portions of the shank of each needle comprise first and second plates and means of applying a high voltage between the two plates (col. 6, lines 20-32). He also discloses a method of treating the atmosphere in premises or a room fitted with computer or electronic equipment (col. 5, lines 66-67 and col. 6, lines 1-18).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Independent claim 4 and dependent claims 3, 5-7, 12-29, 37-40, and 42-43 are rejected under U.S.C. 103(a) as being unpatentable over Breton (5,789,749), in view of Marcus et al. (5,100,355).

8. With respect to independent 4 and dependent claims 3-5, Breton fails to disclose needles being made of material selected from a group of titanium, or the emitter end being covered with gold. Marcus et al., however, disclose needles being made of low-work function metals such as titanium, or other combinations of metals (col. 4, lines 53-64), including emitter end covered with gold (col. 4, lines 58-60).

It would have been obvious to one having ordinary skill in the art at the time of

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the invention was made to combine the method and apparatus of Brenton and Marcus et al. and add features like composite material of the insulation around the needle being made of mica or unsaturated polyester, or subjecting vacuum-packed foodstuffs to negative ion fluxes, because Marcus et al. teach (col. 1, lines 10-12) that microminiature tapered structures have been proposed for use in a variety of applications of practical importance.


Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Akama discloses (5,509,843) method and apparatus for manufacturing needle shaped materials and microemitters.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zia Hashmi whose telephone number is (703) 305-0419. The examiner can normally be reached between 8.30 AM- 5 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (703) 308-4116.

Zia Hashmi

February 18, 2003.


JOHN R. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800